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ABSTRACT

Designed for Ohio educators responsible for planning programs to prepare high school students for careers in health services, this document presents an overview of Ohio's Integrated Technical and Academic Competencies (ITAC) system of career-focused education and specific information about the health services ITAC career cluster. The first half of the document, which introduces the ITAC system's underlying principles and elements, contains the following items: (1) descriptions of the three types of integrated competencies (core, career cluster, and specialization) forming the ITAC model; (2) guidelines for using ITAC; (3) an explanation of the components of the 51 core ITAC; and (4) a table detailing the academic connections in the core ITAC. The second half of the document, which focuses on the health services career cluster ITAC, is divided into six sections, each of which focuses on one of the following strands deemed essential for all careers: solving problems and thinking skillfully; communicating effectively; applying technology; working responsibly; planning and managing a career; and managing resources. Each section contains the following items: expectation; competencies; sample scenario; sample guiding questions; connections to core ITAC competencies; connections to academic models; and connections to Ohio's proficiency tests and ACT Work Keys. (MN)

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Health Services Career Cluster

ITAC

for Career-Focused Education

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ITAC

Integrated Technical & Academic Competencies

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The Health Services Career Cluster includes entry-level, technical and professional careers within the health services industry. Service, research, education and manufacturing areas of the health services industry are included in this career cluster. Many career opportunities exist within medicine, dentistry, nursing, radiology, optometry, nutrition, biotechnology, physical therapy, occupational therapy, rehabilitation, and prevention and wellness.

Sample career options within this cluster include—

- family practitioner
- surgical technician
- nutritionist
- respiratory therapist
- ultrasound technician
- renal dialysis technician
- ophthalmic technician
- medical technologist
- nurse practitioner
- orthodonist
- chiropractor

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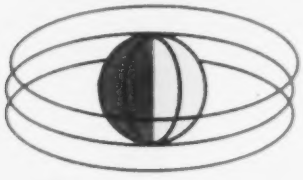
Career-Focused Education

Career-Focused Education combines high-level academics and technical skills with a real-life context for learning that maximizes students' present and future academic and career success. Career-focused education strengthens—

- proficiency test success
- integrated instruction
- partnerships between education and business & industry
- aquisition of transferable career skills



ITAC

Integrated Technical & Academic Competencies for Career-Focused Education

Ohio Department of Education
Division of Career-Technical and Adult Education

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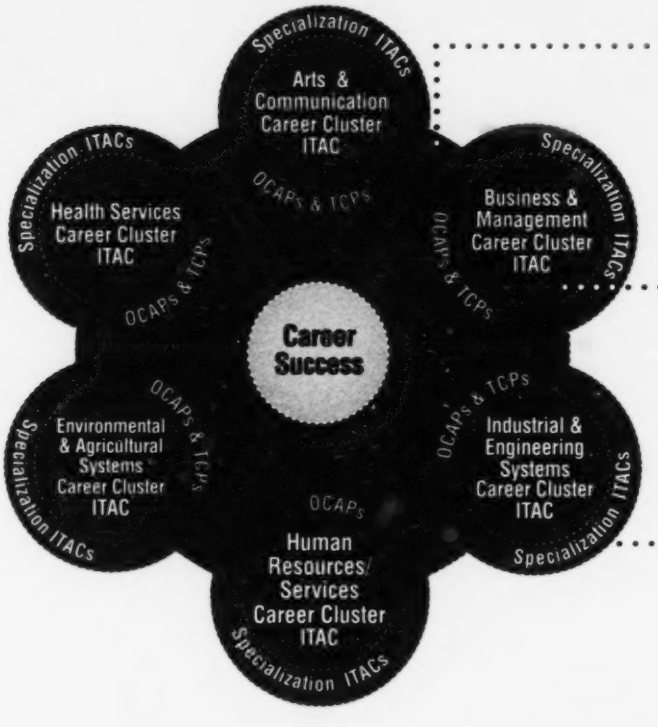
Components of the ITAC System

Integrated Technical and Academic Competencies (ITAC) documents consist of competencies that integrate academic, technical, and employability knowledge, skills, and attitudes. ITACs are presented in resource documents that include the expectations, competencies, scenarios, and academic connections. ITACs are developed through—

- review and synthesis of national academic, employability, and occupational standards;
- review by teachers—both vocational and academic;
- validation by business and industry representatives; and
- direct links to Ohio's competency-based education (CBE) models, proficiency test learning outcomes, and ACT Work Keys® System.

ITAC Model



Three types of ITACs form this model:

Core ITAC – Consists of 51 competencies organized into six strands essential for all careers and sample work-related scenarios. Core ITAC represents what individuals need to know and be able to do to be successful in further education, in a career, and in life.

Career Cluster ITAC – Consists of the foundational competencies common to related occupations or industries and sample work-related scenarios. The six Career Cluster ITACs provide a broad foundation for entry-level, technical, and professional careers.

Specialization ITAC – Consists of competencies and sample scenarios critical to success in a specific industry or occupation within a career cluster. Currently, 55 Occupational Competency Analysis Profiles (OCAPs) represent the Specialization Competencies. As OCAPs are revised, they will become Specialization ITACs.

The ITAC system builds on and expands the Occupational Competency Analysis Profile (OCAP) system, which was designed primarily for occupation-specific vocational programs. The ITAC system provides a broader range of competencies, integrates academic knowledge and skills with technical content, and provides sample scenarios to illustrate work-related context. This system is a resource for ***both*** academic and technical teachers as they plan programs and instruction.

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How to Use ITACs

Integrated Technical and Academic Competencies (ITAC) documents are resources for planning programs. The competencies of the ITAC system integrate technical and academic content and are organized into three types, moving from broad to specific—core, career cluster, and specialization. The types are interrelated building blocks for program design. *Core* provides the broad competencies. *Career Cluster* incorporates use of *Core* competencies. *Specialization* incorporates application of both the related *Career Cluster* and *Core* competencies. These ITAC types can be integrated into the overall educational system as follows:

- The Core ITAC could be used to design learning experiences for all students.
- The Career Cluster ITACs—in combination with Core ITAC—could be used to guide courses or experiences in which students explore and develop essential competencies within one of the following career clusters:

  ✔ **Arts & Communication**

  ✔ **Business & Management**

  ✔ **Environmental & Agricultural Systems**

  ✔ **Health Services**

  ✔ **Human Resources/Services**

  ✔ **Industrial & Engineering Systems**

- Specialization ITACs—in combination with Core ITAC and Cluster ITACs—could be used for those programs, courses, and experiences with specific technical skill development.

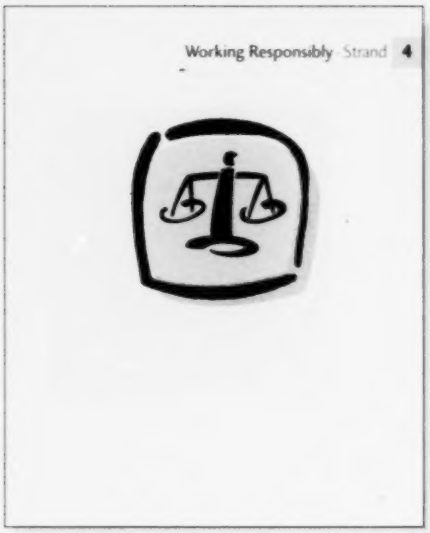
As a curricular and instructional planning tool, ITACs identify the knowledge, skills, and attitudes needed to help students prepare for academic and career success. ITAC documents foster the development of interdisciplinary projects and learning experiences by illustrating the relationships between broad-based career skills and academic content. Educators can use the components of the ITACs in a number of ways for classroom instruction:

- Competencies can be reviewed and relevant competencies selected for instruction.
- Connections that need to be made between competencies and academic skills can be identified.
- Scenarios can be used as a basis for learning experiences.

Components of Core ITAC

Expectation – a statement of desired workplace behaviors and their importance in the world of work.

Competencies – observable and measurable knowledge, skills, and attitudes essential to achievement of the expectation.



Each strand in Core ITAC has an introduction page which identifies the strand (in words and by icon).

Working Responsibly
Expectation
Work organizations value employees who possess the ability to work with diverse groups of people and who are able to lead others toward the achievement of common goals. Individuals must demonstrate a positive work ethic—exhibiting honesty, initiative, and dependability. In addition, they should understand the importance of ethical conduct and the role of ethics in professional organizations and work environments.
Competencies
Scenario
Guiding Questions

Sample Scenario – a real-life workplace situation requiring learners to apply the knowledge and skills reflected in the strand competencies.

Sample Guiding Questions – targeted questions to use in focusing learners' attention on knowledge and skills covered in the scenario.

Solving Problems and Thinking Skillfully

Communicating Effectively

Applying Technology

Working Responsibly

Planning and Managing a Career

Managing Resources

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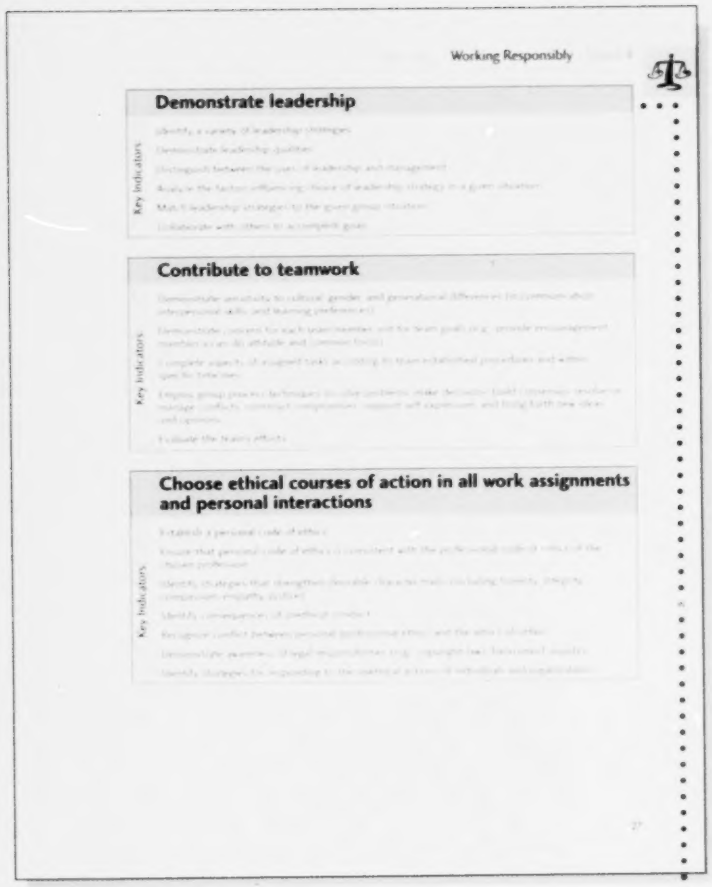

Working Responsibly

Demonstrate leadership

Key Indicators

Contribute to teamwork

Key Indicators

Choose ethical courses of action in all work assignments and personal interactions

Key Indicators

Pages following the overview list each competency with its key indicators. Key indicators describe significant elements of competency performance.

Core ITAC Competencies	Academic Models: Percent of Model Relating to Core ITAC					
	The Arts	Math	Social Studies	Language Arts	Foreign Language	Science
Strand 3 — Applying Technology						
Strand 4 — Working Responsibly						
Strand 5 — Planning and Managing a Career						

Connections to Academic Models – the percentage of objectives from Ohio's Competency-Based Education Models, grades PreK – 12, that relate to and/or reinforce the competencies in the given strand. Each academic area is represented by an icon.

The Arts

Mathematics

Social Studies

Language Arts

Foreign Language

Science

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Solving Problems and Thinking Skillfully - Strand 1

Core ITAC

Expectation

All individuals, regardless of career choice, must be able to think for themselves; initiate action on their own; and direct, modify, and assess their own work. Employers seek lifelong learners who can locate and use information. The following competencies specify the knowledge, skills, and attitudes needed to develop the capacity to assess problems and situations, anticipate what might happen next, and continuously search for creative solutions.

Competencies

- Solve problems and make decisions in work-related situations
- Read for information and understanding
- Use observation skills to analyze work-related situations
- Apply mathematical processes
- Apply measurement and spatial skills
- Apply statistical analysis skills
- Analyze critical data to guide work activities
- Utilize scheduling techniques to ensure that jobs are completed by the stated due date
- Demonstrate knowledge of the economy and how it functions as a whole
- Demonstrate knowledge of the economy as a framework within which decisions are made by individuals and groups

Scenario

You are among a team of architects hired to plan the revitalization of a deteriorating historic area in your community. In spite of a rich ethnic history and residents who are committed to seeing the area thrive, the neighborhood is plagued by inadequate housing, abandoned buildings, lack of transportation, crime, and declining businesses. The City Planning Commission is prepared to provide resources to encourage economic development, recreation areas, and better housing. Create a design for the neighborhood and present your plans to the commission for their approval.

Guiding Questions

- What alternative uses should be considered for the land to best meet the needs of the community and its citizens?
- What historic and current economic, social, and environmental factors should be considered in the creation of the plan?
- What data regarding the needs and concerns of citizens and businesses in the community would inform the design of the neighborhood? How should this data be collected, analyzed, and presented?

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Solve problems and make decisions in work-related situations

Key Indicators:

- Identify factors that influence problem solving and decision making
- Analyze the source of the problem or the situation requiring a decision
- Generate possible alternatives
- Analyze possible alternatives
- Match problem-solving and decision-making processes to the situation
- Use creative thinking processes to support solving problems and making decisions
- Justify solution or decision with evidence to support or refute alternatives
- Formulate action plans
- Implement action plans
- Evaluate action taken
- Monitor action plans
- Adjust action plans as needed

Read for information and understanding

Key Indicators:

- Locate needed information in written materials using formatting cues, skimming, and scanning
- Interpret written information, including manuals, graphs, and schedules
- Unlock the meaning of unknown or technical vocabulary using standard strategies (e.g., context clues, prefixes, suffixes)
- Locate key points, main ideas, relevant details, facts, and specifications in written materials
- Judge the accuracy, appropriateness, style, and plausibility of information, proposals, or theories in materials read

Use observation skills to analyze work-related situations

Key Indicators:

- Collect data through sensory perceptions—seeing, hearing, tasting, touching, and smelling
- Identify predictable patterns and relationships in given situations
- Monitor situations for deviations
- Identify patterns and relationships that create doubt, uncertainty, difficulty, or disappointment
- Devise appropriate responses to given situations
- Apply past observations to present work-related situations

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Apply mathematical processes

Key Indicators:

- Solve mathematical problems involving whole numbers and integers
- Solve mathematical problems involving fractions, mixed numbers, decimals, percentages, ratios, and proportions
- Apply systematic counting techniques and algorithmic thinking to represent, analyze, and solve problems
- Use estimates to determine reasonableness of proposed problem solutions
- Use appropriate technology in the solution of math-related problems
- Describe problem situations using numerical, symbolic, and graphical representations
- Apply combinations of algebraic techniques
- Represent problem situations with geometric models (including applying the properties of figures)
- Express mathematical ideas orally and in writing

Apply measurement and spatial skills

Key Indicators:

- Demonstrate knowledge of units of measurement
- Select measurement techniques appropriate for given situation
- Match measurement tools to measurement requirements
- Determine degree of accuracy required for given situation
- Analyze implications of the degree of accuracy of various measurements

Apply statistical analysis skills

Key Indicators:

- Estimate probability using standard techniques and formulas
- Analyze software options available for statistical analysis
- Select software option most appropriate for given situation
- Analyze statistical data using selected software
- Make inferences or predictions based on data analysis
- Represent statistical data using tables, charts, and graphs

Analyze critical data to guide work activities

Key Indicators:

- Identify critical data needed
- Determine the level of detail necessary for various situations according to prescribed procedures (including task analysis; procedural analysis; financial activities; personnel matters; customer contacts; noncompliance and violations; and/or deviations from normal operation of processes, equipment and instrumentation)
- Ensure that documentation is complete and error-free and provides valid and reliable evidence
- Ensure that documentation is in compliance with established procedures
- Analyze documentation to determine appropriate actions for specific situations

Utilize scheduling techniques to ensure that jobs are completed by the stated due date

Key Indicators:

- Develop schedules for equipment maintenance
- Develop schedules for materials production, handling, and distribution
- Develop meeting schedules
- Distribute schedules to all concerned personnel
- Implement schedules as planned
- Make changes in schedules as appropriate

Demonstrate knowledge of the economy and how it functions as a whole

Key Indicators:

- Analyze how individuals and societies make choices to satisfy wants with limited resources
- Analyze how factors of production (including land, labor, capital, and entrepreneurship) are used to produce goods and services
- Analyze how individuals and households exchange their resources for income in order to buy goods and services
- Analyze how individuals and business firms use resources to produce goods and services to generate revenue
- Identify the characteristics of command, market, and traditional economies
- Analyze how all levels of government assess taxes in order to provide services

Demonstrate knowledge of the economy as a framework within which decisions are made by individuals and groups

Key Indicators:

- Determine opportunity costs and trade-offs
- Identify key individuals and groups that make economic decisions at the local, state, national, and international levels
- Identify the important roles that local, state, national, and international governments play in a global economy
- Characterize how government decisions affect individuals
- Identify how geographic factors affect the political and economic systems of other countries
- Analyze how national and international markets allocate goods and services
- Analyze how resources, goods, and services are exchanged in national and international markets
- Demonstrate knowledge of competition and how it affects national and international markets
- Demonstrate knowledge of supply and demand and how it affects national and international markets

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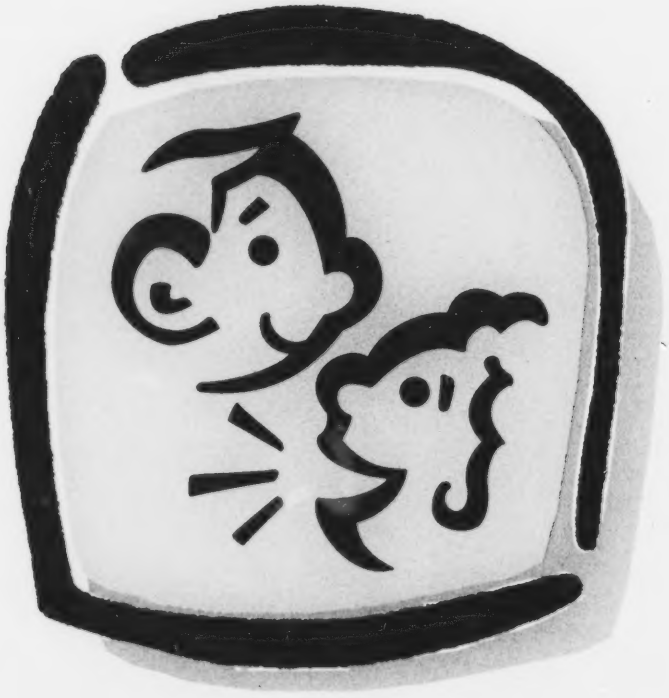
Communicating Effectively - Strand **2**

Core ITAC



Expectation

Effective communication is essential to workplaces, communities, and families. Employees with positive communication skills contribute to organizational productivity, enhance interpersonal relationships with coworkers and clients, and create opportunities for promotion and advancement.

Competencies

- Apply basic communication skills
- Apply oral communication skills
- Apply written communication skills
- Apply technical writing skills
- Apply listening skills
- Apply demonstration/presentation skills
- Apply graphic communication skills
- Apply artistic communication skills
- Convey information through multimedia presentations
- Create graphs and charts
- Build interpersonal relationships

Scenario

The Chamber of Commerce in your city would like to develop materials to attract new businesses to the community. Your public relations firm has been hired to create promotional materials that highlight your community's resources, rich ethnic history, and workforce. Create these materials and present them to a variety of community members, including business and industry representatives, private citizens, and civic leaders.

Guiding Questions

- What communication tools should be used to convey this information to the target audiences?
- How will you use creative or artistic expression to communicate the information to the target audience?
- What historic and current events have contributed to the city's resources, ethnic diversity, and workforce?
- How will you work with community groups and representatives to build support for your promotional materials?

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Apply basic communication skills

Key Indicators:

- Guide communication activities using established rules for grammar, word usage, spelling, and sentence construction
- Select communication style appropriate to audience and situation
- Present messages in a form that assists recipient's understanding (e.g., speak and write clearly and concisely, write legibly)
- Locate needed information using communications reference tools (e.g., dictionary, thesaurus, style manual, word division guide)
- Interpret oral, written, and nonverbal messages
- Follow written and oral instructions
- Clarify messages received (e.g., through paraphrasing, questioning)
- Communicate basic messages in a language other than English

Apply oral communication skills

Key Indicators:

- Apply basic communication skills in communicating orally
- Use nonverbal techniques to reinforce the intended verbal message
- Support oral communication with creative attention-getters, analogies, examples, verbal illustrations, etc.
- Supplement oral communication with other forms of communication (including graphic, written, artistic)
- Demonstrate sensitivity to cultural diversity (e.g., accepted variations in distances between speakers, use of eye contact, meaning of gestures; bias-free language)
- Adjust delivery according to perceived reception

Apply written communication skills

Key Indicators:

- Apply basic communication skills in communicating in written form
- Organize information into the appropriate format in accordance with standard practices (including prewriting, drafting, proofreading, editing/revising, preparing final copy/publishing)
- Incorporate creative and original elements (e.g., unique writing style, content, layout) in the written product
- Supplement written communication with other forms of communication (including graphic, oral, artistic)
- Demonstrate sensitivity to cultural diversity
- Use technology (e.g., spelling checkers) to enhance accuracy

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Apply technical writing skills

Key Indicators:

- Apply basic communication skills
- Consider topic in relation to the audience and purpose
- Determine when graphics, charts, and sketches are needed to support and clarify text
- Present information in a clear and concise manner

Apply listening skills

Key Indicators:

- Identify major points of the message (including key information, directions, specific details)
- Determine real needs or goals by attending to both verbal and nonverbal messages
- Differentiate between facts, opinions, and feelings
- Document message using standard note-taking techniques
- Overcome communication barriers
- Clarify communication by rephrasing statements, asking questions, showing empathy, and interpreting both verbal and nonverbal information

Apply demonstration/presentation skills

Key Indicators:

- Apply basic communication skills in presenting a demonstration/presentation
- Select valid and reliable reference(s)
- Organize content based on purpose and audience
- Determine desirable format
- Incorporate creative and original elements into the demonstration/presentation
- Organize the components necessary to conduct a demonstration/presentation (including resources, equipment, handouts, graphics, advance organizers)
- Incorporate media that support the purpose of the demonstration/presentation (including projection equipment, computer software)
- Present the results of an investigation
- Demonstrate the operation of equipment or facilities and/or given techniques and procedures
- Communicate possible problems, processes, and solutions
- Demonstrate knowledge of the topic(s) to be communicated
- Use self-expression appropriate to the situation (including grooming, adjustment of behavior, expression of feelings and ideas)
- Convey information to audience according to accepted business communication practices
- Adjust communication according to audience feedback

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Apply graphic communication skills

Key Indicators:

- Apply basic communication skills in communicating through graphics
- Ensure that all information is accurate and complete
- Specify graphics needed to support presentations
- Communicate information using graphics in, print, poster, or transparency form
- Communicate information using slides prepared with presentation software
- Incorporate creative and original elements into graphics
- Employ effective design techniques in development of graphics (including space, lines, shading, shaping, symbols)
- Demonstrate sensitivity to cultural diversity

Apply artistic communication skills

Key Indicators:

- Apply basic communication skills in communicating artistically
- Participate in a wide variety of experiences that expose self to an appreciation of the arts disciplines—dance, music, theater, and the visual arts
- Analyze exemplary works through the relationship between artistic practices, products, and perspectives
- Interpret historical and modern artifacts
- Demonstrate artistic and creative techniques of production and performance
- Create an original artifact or performance that demonstrates an understanding of history and culture

Convey information through multimedia presentations

Key Indicators:

- Organize content based on purpose and audience
- Evaluate which set of procedures, tools, or equipment will produce the desired results
- Produce a presentation, including designing, creating, importing data and graphics, editing, formatting, and sequencing
- Operate multimedia equipment
- Apply problem-solving techniques to resolve problems encountered in the process of designing and implementing multimedia presentations

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Create graphs and charts

Key Indicators:

- Access sources of needed information
- Select data for inclusion
- Convert data into chosen graphical format
- Ensure that the results are correctly represented (including font, scale, size)
- Draw conclusions from information presented in graphs and charts

Build interpersonal relationships

Key Indicators:

- Demonstrate knowledge of the components of effective communication
- Relate to people of different ages, abilities, genders, cultures, and behavior styles
- Demonstrate caring, empathy, and appreciation for others
- Communicate personal feelings, needs, and ideas constructively
- Demonstrate effective listening skills
- Manage conflict and stress

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Applying Technology - Strand 3

Core ITAC

Expectation

Technology influences every work environment. To be effective in today's workplace, individuals must be able to use the tools of technology to improve productivity and efficiency. Employers seek individuals who have developed technological skills and who stay abreast of the continuously changing technological environment.

Competencies

Demonstrate technological literacy

Access/transmit information using electronic communication systems

Demonstrate computer literacy

Use database software in work-related situations

Use spreadsheet software in work-related situations

Use word-processing software in work-related situations

Scenario

You own a company that sells and maintains a wide variety of office equipment and computer systems. A small, family-owned business has asked you to develop a proposal for equipping its organization with the technology necessary to improve its productivity and customer service. Prepare a proposal with your recommendations, and present it to the owners of the business to persuade them to accept your proposal.

Guiding Questions

- How have technological innovations influenced workplace performance?
- What information do you need about this business to determine its technological needs?
- How will you obtain that information?
- What hardware, software, and online services does this business need?
- What communication tools will you need to persuade this business to accept your proposal?

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Demonstrate technological literacy

Key Indicators:

- Demonstrate knowledge of the basic technology systems currently available (e.g., manufacturing technology, organizing and accessing information for technology)
- Analyze the interplay of technology with social issues, gender issues, ethics, law, and government
- Identify the uses of technology in industry, education, the political arena, and day-to-day consumer affairs
- Analyze the benefits and costs of new developments in technology
- Make decisions about the use of technology that improve performance in the workplace, in school, and in the home

Access/transmit information using electronic communication systems

Key Indicators:

- Determine which systems are most appropriate for given situations
- Transmit messages electronically
- Access information electronically (e.g., via information services, CD-ROMs, laser disks, videos, and the Internet)
- Conduct searches electronically
- Participate in electronic discussion groups

Demonstrate computer literacy

Key Indicators:

- Choose the hardware, software, and online services that will produce the desired results
- Comply with ethical standards in the acquisition, organization, analysis, and communication of information
- Keep informed of legal parameters regarding computers
- Provide routine maintenance and repair of computer hardware and software
- Write basic computer programs for given purposes

Use database software in work-related situations

Key Indicators:

- Demonstrate knowledge of the functions and features of database software
- Identify the type of data needed
- Determine the best database to aid in the collection, tabulation, synthesis, and evaluation of the particular data identified
- Locate needed operations information using software documentation or help functions
- Construct database for the specified purpose
- Access needed information from the database
- Select report design for presenting data

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Use spreadsheet software in work-related situations

Key Indicators:

- Demonstrate knowledge of the functions and features of spreadsheet software
- Identify the type of data needed
- Determine the best spreadsheet to aid in the collection, tabulation, synthesis, and evaluation of the identified data
- Locate needed operations information using software documentation or help functions
- Construct spreadsheet for the specified purpose
- Analyze data
- Interpret results

Use word-processing software in work-related situations

Key Indicators:

- Demonstrate knowledge of the functions and features of word-processing software
- Construct word-processed documents for the specified purpose
- Locate needed operations information using software documentation or help functions
- Integrate databases, spreadsheets, graphics, and desktop publishing files into word-processed documents
- Edit documents using available software features and functions

Working Responsibly - Strand 4

Core ITAC

Expectation

Work organizations value employees who possess the ability to work with diverse groups of people and who are able to lead others toward the achievement of common goals. Individuals must demonstrate a positive work ethic—exhibiting honesty, initiative, and dependability. In addition, they should understand the importance of ethical conduct and the role of ethics in professional organizations and work environments.

Competencies

- Demonstrate leadership
- Contribute to teamwork
- Choose ethical courses of action in all work assignments and personal interactions
- Demonstrate the work ethic
- Comply with the confidentiality requirements of workplace policies and procedures
- Apply appropriate strategies for dealing with the differences associated with diversity (e.g., racial, ethnic, gender, educational, personality, social, and age)

Scenario

You are the director of human resources for a chain of retail stores. Lately there have been several incidents in which employees have treated customers rudely or unfairly because of the customers' racial or ethnic background. You have been asked to provide training for employees that will encourage an appreciation of diversity, positive relations with customers, and an understanding of the legal and economic implications of inappropriate behavior. Present the training plan to your company's management team for their approval.

Guiding Questions

- What are the benefits of multicultural diversity? What can business organizations do to support an appreciation of diversity?
- What are the contributions of various ethnic groups to businesses, communities, and society?
- What are the legal, social, and economic consequences of prejudicial or discriminatory actions for individuals, businesses, and communities?
- What laws prohibit discriminatory actions? In what context were these laws enacted?

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Demonstrate leadership

Key Indicators:

- Identify a variety of leadership strategies
- Demonstrate leadership qualities
- Distinguish between the uses of leadership and management
- Analyze the factors influencing choice of leadership strategy in a given situation
- Match leadership strategies to the given group situation
- Collaborate with others to accomplish goals

Contribute to teamwork

Key Indicators:

- Demonstrate sensitivity to cultural, gender, and generational differences (in communication, interpersonal skills, and learning preferences)
- Demonstrate concern for each team member and for team goals (e.g., provide encouragement, maintain a can-do attitude and common focus)
- Complete aspects of assigned tasks according to team-established procedures and within specific timelines
- Employ group process techniques to solve problems, make decisions, build consensus, resolve or manage conflicts, construct compromises, support self-expression, and bring forth new ideas and opinions
- Evaluate the team's efforts

Choose ethical courses of action in all work assignments and personal interactions

Key Indicators:

- Establish a personal code of ethics
- Ensure that personal code of ethics is consistent with the professional code of ethics of the chosen profession
- Identify strategies that strengthen desirable character traits (including honesty, integrity, compassion, empathy, justice)
- Identify consequences of unethical conduct
- Recognize conflict between personal/professional ethics and the ethics of others
- Demonstrate awareness of legal responsibilities (e.g., copyright laws, harassment, equity)
- Identify strategies for responding to the unethical actions of individuals and organizations

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Demonstrate the work ethic

Key Indicators:

- Exhibit desirable personal and professional attitudes and behaviors (including positive view of self and work, awareness of impact on others, responsibility, pride)
- Exhibit desirable personal and professional work habits and behaviors (including punctuality, regular attendance, quality performance, meeting or exceeding of job expectations, self-motivation, honesty)
- Determine own role within the company's mission
- Participate in required and voluntary professional development to benefit employer and self
- Improve performance for the benefit of employer and self
- Display a sense of personal responsibility for the welfare of the company and colleagues (including health, safety, environmental concerns)
- Distinguish between work ethics of various organizations, work groups, and cultures

Comply with the confidentiality requirements of workplace policies and procedures

Key Indicators:

- Identify types of confidential information (including mail and information about personnel, customers, company)
- Maintain records on the distribution of information using established format and procedures
- Provide information only to authorized personnel, whether transmitted physically or via technology
- Inspect returned materials for completeness
- Identify the consequences of a breach of confidentiality

Apply appropriate strategies for dealing with the differences associated with diversity (e.g., racial, ethnic, gender, educational, social and age)

Key Indicators:

- Recognize the differences associated with diversity and the implications of those differences
- Demonstrate effective interpersonal skills in working with others of different backgrounds
- Express feelings, actions, and ideas respectfully
- Identify appropriate strategies and solutions for dealing with cultural conflicts and differences
- Demonstrate respect for diverse international business practices and etiquette

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Planning and Managing a Career - Strand 5

Core ITAC

Expectation

Since work is a significant part of life, individuals need to be actively engaged in seeking a career that matches their interests, abilities, aptitudes, and skills. Career planning enhances the possibility that one's career path will lead to success and satisfaction in work. Employers seek individuals who know what they want from work and can effectively present their qualifications and skills through the job search process, including job applications and interviews. Throughout one's career, it is also important to seek continuous professional development opportunities.

Competencies

- Identify how personal interests, abilities, and skills relate to choosing a career
- Investigate career options
- Chart career using career-planning skills
- Demonstrate skills needed to enter or reenter the workforce
- Demonstrate job-keeping skills
- Upgrade career skills
- Explore opportunities to create a business

Scenario

You have just been granted an interview for a position in the career area of your choice. Assuming you have completed all education and training necessary for this career, prepare to discuss why you selected the career, your long-range career goals, the skills you will bring to the workplace, and your long-term plan for professional development. Following the interview, obtain feedback about your ability to portray your interest and qualifications.

Guiding Questions

- What should you consider when planning a career?
- What are the implications of selecting a nontraditional career?
- What skills are needed to be successful in this career? How can you obtain those skills?
- Where can you obtain information about various careers and career opportunities?
- What communication skills will you use to convey your interest in and qualifications for this career?

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Identify how personal interests, abilities, and skills relate to choosing a career

Key Indicators:

- Determine own interests and aptitudes
- Relate personal interests to academic and occupational skills
- Identify impact of abilities and skills on career development
- Identify how self-knowledge relates to making career choices

Investigate career options

Key Indicators:

- Identify career options, including self-employment and nontraditional careers
- Identify the range of available career information sources
- Research knowledge, abilities, and skills needed in each occupation using a variety of resources (e.g., handbooks, career materials, labor market information, computerized career-information delivery systems, and role models/mentors)
- Select careers that best match interests and aptitudes
- Analyze the impact of factors such as population, climate, employment trends, and geographic location on occupational choice
- Assess differences in the wages, benefits, annual incomes, cost of living, and job opportunities associated with selected career options
- Identify potential conflicts between interest/aptitudes and career choices
- Identify how career choices influence family, personal life, and lifestyle
- Assess labor market information pertaining to career options
- Explore future trends and occupations in the world of work

Chart career using career-planning skills

Key Indicators:

- Demonstrate use of career information
- Identify elements of career planning
- Summarize the educational requirements of various occupations
- Identify skills that apply to a variety of occupations
- Identify challenges that may interfere with individual career plan (e.g., gender issues, misinformation, expectations of others, and conditions of labor market)
- Identify short-term and long-term goals for achieving career plan
- Develop a career plan
- Showcase interests, aptitudes, and skills utilizing a portfolio
- Annually review/revise the individual career plan

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Demonstrate skills needed to enter or reenter the workforce

Key Indicators:

- Apply knowledge of personal abilities, interests, and skills to the seeking of employment regionally, nationally, and globally
- Develop job-getting tools (including résumés, letters of application, portfolios)
- Demonstrate job-getting skills (including locating acceptable jobs, interviewing, completing a job application, and interpreting an employee contract)
- Demonstrate skill in a second language if required for the position
- Maintain a portfolio demonstrating job competence and containing job-getting tools

Demonstrate job-keeping skills

Key Indicators:

- Demonstrate strong communication skills orally, in writing, or via computer
- Apply basic arithmetic and mathematics skills to job tasks
- Apply thinking skills to job tasks (including creative thinking, decision making, reasoning, problem solving, interpretation of information)
- Apply interpersonal skills in relating to others on the job
- Identify an awareness of employer expectations for the job
- Carryout job tasks in accordance with employer expectations
- Display positive work ethic

Upgrade career skills

Key Indicators:

- Identify personal and workplace changes that require upgrading of own skills
- Modify own career goals based on personal and workplace changes
- Analyze various education/training options for securing needed upgrading
- Identify professional development opportunities
- Participate in professional development activities
- Recognize need for lifelong upgrading of career skills

Explore opportunities to create businesses

Key Indicators:

- Identify an unmet need or opportunity for provision of a good or service
- Identify potential target markets nationally and/or internationally
- Identify factors that contribute to the success or failure of a business
- Evaluate the costs and benefits of future opportunities (e.g., renovations, improvements, expansions, addition of new products or services, international trade opportunities)
- Evaluate entrepreneurship and intrapreneurship opportunities
- Identify components of a business plan, considering various factors for identified opportunities and marketing strategies (including population, climate, location, supply and demand, competition)

Managing Resources - Strand 6

Core ITAC

Expectation

In high-performance workplaces, all individuals must effectively manage a variety of resources—personal, financial, and environmental. Individuals' ability to maintain good health, contribute to a safe work environment, and manage time not only enhances personal well-being, but fosters the success of the organization or business as well.

Competencies

- Apply self-management processes in the workplace
- Use reference materials to obtain information appropriate to a given problem, topic, or situation
- Maintain/promote wellness
- Determine the impact of government regulations and business/industry procedures on the performance of particular work functions
- Implement safety procedures and programs
- Support the provision of first aid in accordance with company policy and procedures
- Manage work and family responsibilities for the well-being of self and others
- Determine resources needed to produce a given product or provide a given service
- Ensure the quality of products and services
- Utilize an inventory control system to track supplies, materials, and equipment
- Make informed financial decisions

Scenario

Your city has just experienced an outbreak of E.coli bacteria, which made a large percentage of the population ill. As a member of the city health department staff, your job is to analyze the potential causes of the outbreak and to educate the citizens and businesses in the community so as to prevent future outbreaks. Develop and present several communication tools, such as a 60-second television advertisement and a brochure, that convey your recommendations to prevent further contamination and illness.

Guiding Questions

- What food-handling and production practices contribute to E.coli contamination?
- What are the consequences of unsafe practices for individuals, businesses, and the community as a whole?
- What government regulations and business/industry policies impact the quality and safety of the foods we eat?
- How can individuals and families maintain good health and prevent E.coli contamination?

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Apply self-management processes in the workplace

Key Indicators:

- Develop a system for organizing work
- Apply time-management skills
- Apply anger-management skills
- Apply stress-management skills
- Arrange work environment based on the principles of ergonomics
- Maintain a work area conducive to productivity (e.g., neat, orderly)
- Manage resources to support achievement of goals

Use reference materials to obtain information appropriate to a given problem, topic, or situation

Key Indicators:

- Obtain needed technological and informational reference materials
- Collect information from selected references
- Evaluate the validity and reliability of the information obtained
- Organize information for use in problem solving, decision making, or communications
- Apply information to workplace situations

Maintain/promote wellness

Key Indicators:

- Recognize positive and negative influences on wellness (including social activities, sports, hobbies, environment, health, emotions, economics)
- Participate in the arts disciplines and/or extracurricular activities (including dance, music, theater, visual arts, sports) that promote wellness and balance within an individual
- Follow wellness principles that result in significant, measurable improvements in own overall health condition and the health condition of peer(s)
- Monitor health and health parameters
- Act on environmental issues that influence wellness

Determine the impact of government regulations and business/industry procedures on the performance of particular job functions

Key Indicators:

- Identify the purpose of government regulations and their impact on the management of resources
- Differentiate among federal, state, and local regulations and local business and industry procedures
- Identify the various agencies involved in government oversight
- Identify which regulations or guidelines take priority in a given situation
- Locate information about the required process(es) for implementing regulations
- Comply with regulations in the handling of materials, services, resources, and/or work activities (including inspection or self-monitoring)

Implement safety procedures and programs

Key Indicators:

- Identify safety requirements
- Demonstrate knowledge of safety rules and guidelines
- Interpret safety signs and symbols
- Demonstrate desirable safety attitudes and habits
- Use safety equipment in accordance with established procedures
- Document results of safety procedures and programs

Support the provision of first aid in accordance with company policy and procedures

Key Indicators:

- Identify supplies and equipment needed in emergency situations
- Locate supplies and equipment needed in emergency situations
- Follow established procedures for the administration of first aid until official help arrives
- Analyze the impact of stress throughout an emergency situation
- Practice universal precautions during first aid procedures (including those related to blood-borne pathogens, confined spaces, emergency egress, fire safety, hearing conservation)

Manage work and family responsibilities for the well-being of self and others

Key Indicators:

- Explore the meaning of work and the meaning of family
- Analyze how work life is affected by families and how families are affected by work life
- Implement strategies for balancing work and family roles

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Determine resources needed to produce a given product or provide a service

Key Indicators:

- Identify the different types of resources involved in the production of a product or provision of a service (e.g., financial, human, material, equipment)
- Create a management plan for the allocation of financial resources to meet financial goals
- Plan for the appropriate allocation and use of materials and equipment
- Plan for the allocation and use of human resources
- Plan for the allocation and use of information and technology needed to make and support decisions
- Plan for the allocation and use of natural resources
- Plan for the allocation and use of space so as to make the best use of facilities for goal achievement

Ensure the quality of products and services

Key Indicators:

- Identify the importance of individual and organizational productivity in the workplace and how it affects the profitability of the business
- Determine the quality- and quantity-control standards and procedures required to produce a specific product or provide a specific service
- Inspect the production of the product or provision of the service to assure quality levels
- Monitor production of products and provision of services
- Select equipment and raw materials that will support quality in the process of producing a product or providing a service
- Interpret quantitative and qualitative records to identify problems and provide a basis for making decisions about the production of products and provision of services
- Provide appropriate documentation regarding the quality of products and services
- Identify corrective actions needed to improve the quality of products and services
- Create new methods for improving the quality of products and services

Utilize an inventory control system to track supplies, materials, and equipment

Key Indicators:

- Determine the factors, including regulations, that influence the type of control system used
- Develop an inventory system
- Maintain the inventory system
- Report the inventory results

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Make informed financial decisions

Key Indicators:

- Identify the need for personal financial management records
- Create a budget
- Evaluate the effectiveness of the budget
- Demonstrate knowledge of how credit affects personal/family finances
- Identify the steps to follow to avoid credit problems
- Make informed consumer choices in response to personal needs and wants
- Identify the factors that influence consumer decisions (e.g., advertisements, peer groups, price, location)
- Recognize the value of company benefits and the importance of retirement planning
- Identify the costs and benefits for individuals of various types of taxation at the local, state, and federal levels

Academic Connections in Core ITAC

Academic Connections answer the question, "What knowledge and skills from the Ohio Compentency-Based Education (CBE) Models are essential to the achievement of the Core competencies?" The academic content represented in the ITAC includes the subject areas from six models:

The Arts

Mathematics

Social Studies

Language Arts

Foreign Language

Science

These connections were identified by relating the content of the competencies in the Core ITAC strands to essential content from the objectives in the Ohio CBE Models. ITAC key indicators for each competency were used to clarify the nature and specificity of the connection. Subject-matter experts in each academic area verified the connections.

The following chart is a summary of the percentages of connections for each model. For specific connections between the core competencies and objectives in each model, visit the following website: <www.cete.org/products>. This summary does not represent all possible opportunities for interdisciplinary curriculum development. Many other connections could be made during the instructional process through authentic projects or workplace situations that involve related content.

Academic Connections in Core ITAC

The chart below illustrates the relationship between the Core ITAC and the objectives in Ohio's Competency-Based Education (CBE) Models. Each column represents the percent of the total number of CBE objectives, PreK–12 grade, that are related to each core competency.

Core ITAC Competencies	Academic Models: Percent of Model Relating to Core ITAC					
	The Arts	Math	Social Studies	Language Arts	Foreign Language	Science
Strand 1— Solving Problems and Thinking Skillfully						
1.1 Solve problems and make decisions in work-related situations	52%	16%	4%	24%	0%	54%
1.2 Read for information and understanding	5%	1%	19%	33%	5%	32%
1.3 Use observation skills to analyze work-related situations	27%	5%	1%	42%	2%	39%
1.4 Apply mathematical processes	0%	62%	1%	<1%	4%	24%
1.5 Apply measurement and spatial skills	0%	22%	1%	0%	4%	28%
1.6 Apply statistical analysis skills	<1%	9%	<1%	1%	0%	12%
1.7 Analyze critical data to guide work activities	5%	0%	1%	1%	0%	27%
1.8 Utilize scheduling techniques to ensure that jobs are completed by the stated due date	<1%	0%	0%	3%	0%	1%
1.9 Demonstrate knowledge of the economy and how it functions as a whole	6%	0%	6%	1%	2%	0%
1.10 Demonstrate knowledge of the economy as a framework within which decisions are made by individuals and groups	3%	2%	6%	1%	4%	0%
Strand 2 — Communicating Effectively						
2.1 Apply basic communication skills	79%	3%	1%	67%	50%	20%
2.2 Apply oral communication skills	14%	5%	0%	18%	37%	10%
2.3 Apply written communication skills	5%	2%	0%	29%	13%	9%
2.4 Apply technical writing skills	2%	0%	0%	1%	0%	5%
2.5 Apply listening skills	4%	0%	1%	21%	8%	9%
2.6 Apply demonstration/presentation skills	20%	<1%	0%	6%	7%	4%
2.7 Apply graphic communication skills	12%	9%	2%	4%	5%	5%
2.8 Apply artistic communication skills	96%	<1%	1%	27%	8%	3%
2.9 Convey information through multimedia presentation	13%	0%	0%	2%	1%	4%
2.10 Create graphs and charts	3%	10%	2%	4%	5%	6%
2.11 Build interpersonal relationships	4%	0%	4%	5%	11%	7%

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Core ITAC Competencies	Academic Models Percent of Model Relating to Core ITAC					
	The Arts	Math	Social Studies	Language Arts	Foreign Language	Science
Strand 3 — Applying Technology						
3.1 Demonstrate technological literacy	5%	1%	1%	0%	0%	8%
3.2 Access/transmit information using electronic communication systems	<1%	0%	0%	2%	11%	2%
3.3 Demonstrate computer literacy	4%	2%	0%	4%	3%	4%
3.4 Use database software in work-related situations	0%	0%	0%	<1%	0%	3%
3.5 Use spreadsheet software in work-related situations	0%	<1%	0%	0%	0%	2%
3.6 Use word-processing software in work-related situations	<1%	0%	0%	2%	2%	2%
Strand 4 — Working Responsibly						
4.1 Demonstrate leadership	0%	0%	2%	1%	0%	4%
4.2 Contribute to teamwork	20%	0%	5%	23%	4%	5%
4.3 Choose ethical courses of action in all work assignments and personal interactions	0%	0%	<1%	1%	0%	4%
4.4 Demonstrate the work ethic	<1%	0%	1%	13%	3%	4%
4.5 Comply with the confidentiality requirements of workplace policies and procedures	0%	0%	0%	<1%	0%	1%
4.6 Apply appropriate strategies for dealing with the differences associated with diversity (e.g., racial, ethnic, gender, educational, personality, social, and age)	20%	0%	8%	20%	8%	4%
Strand 5 — Planning and Managing a Career						
5.1 Identify how personal interests, abilities, and skills relate to choosing a career	8%	0%	1%	11%	2%	1%
5.2 Investigate career options	6%	0%	0%	<1%	3%	1%
5.3 Chart career using career-planning skills	2%	0%	0%	<1%	2%	1%
5.4 Demonstrate skills needed to enter or reenter the workforce	4%	0%	<1%	1%	5%	<1%
5.5 Demonstrate job-keeping skills	0%	0%	0%	8%	<1%	0%
5.6 Upgrade career skills	0%	0%	0%	0%	0%	0%
5.7 Explore opportunities to create businesses	2%	0%	3%	0%	1%	0%

Core ITAC Competencies	Academic Models Percent of Model Relating to Core ITAC					
	The Arts	Math	Social Studies	Language Arts	Foreign Language	Science
Strand 6 — Managing Resources						
6.1 Apply self-management processes in the workplace	5%	0%	3%	8%	8%	3%
6.2 Use reference materials to obtain information appropriate to a given problem, topic, or situation	12%	0%	1%	7%	<1%	4%
6.3 Maintain/promote wellness	<1%	0%	0%	8%	1%	1%
6.4 Determine the impact of government regulations and business/industry procedures on the performance of particular work functions	0%	0%	4%	0%	0%	0%
6.5 Implement safety procedures and programs	12%	0%	0%	<1%	0%	3%
6.6 Support the provision of first aid in accordance with company policy and procedures	0%	0%	0%	0%	0%	0%
6.7 Manage work and family responsibilities for the well-being of self and others	0%	0%	0%	<1%	0%	<1%
6.8 Determine resources needed to produce a given product or provide a given service	11%	0%	6%	2%	0%	1%
6.9 Ensure the quality of products and services	22%	0%	0%	8%	0%	<1%
6.10 Utilize an inventory control system to track supplies, materials, and equipment	0%	0%	0%	<1%	0%	<1%
6.11 Make informed financial decisions	0%	0%	2%	<1%	0%	0%

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Core ITAC Acknowledgments

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Laura Berk, The Center for Manufacturing Excellence, Toledo, Ohio
Kay Briggs, Coalition of Neighborhoods, Cincinnati, Ohio
Walter R. Cates, Sr., Main Street Business Association, Columbus, Ohio
Cap Clegg, Columbus Financial Concepts, Dublin, Ohio
Randy Deatherage, Agnew Farm Equipment, Youngstown, Ohio
Timothy A. Ely, Beacon Electric, Cincinnati, Ohio
Diane Findley, RN, Paul E. Detty MD Inc., Lancaster, Ohio
Sheila Kane, The Andersons General Store, Columbus, Ohio
Keith Meske, Educable TV 25, Columbus, Ohio
Sandy O'Connor, Clark County Dept. of Human Services, Springfield, Ohio
Joyce E. Odor, Columbus Public Schools, Columbus, Ohio
James H. Orsborn, American Electric Power, Columbus, Ohio
Robert A. Osterling, Hy-Level Industries, Cleveland, Ohio
Charlie Pinter, Kroger, Gahanna, Ohio
Scott J. Wallace, Red Roof Inns, Inc., Hilliard, Ohio
Van S. White, Human Resources Consultant, Cincinnati, Ohio
Morris Williams, Coalition of Neighborhoods, Cincinnati, Ohio

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Virginia Ballinger, Ohio Department of Education, Columbus, Ohio
Heather Boggs, Ohio Department of Education, Columbus, Ohio
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Carmen R. Giebelhaus, Ohio Department of Education, Columbus, Ohio
Karen P. Heath, Ohio Department of Education, Columbus, Ohio
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Betty Kulich, Fort Hayes Metro Education Center, Columbus, Ohio
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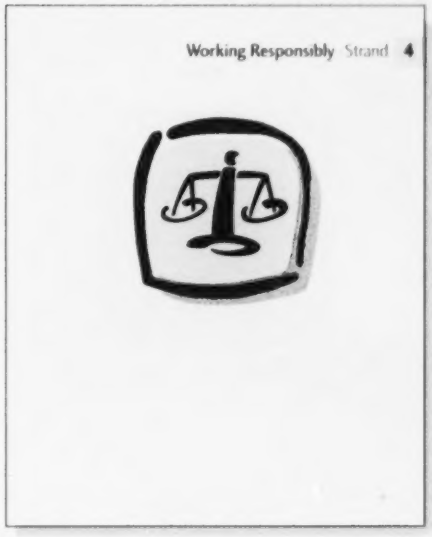
Health Services Career Cluster ITAC

Components of Career Cluster ITACs

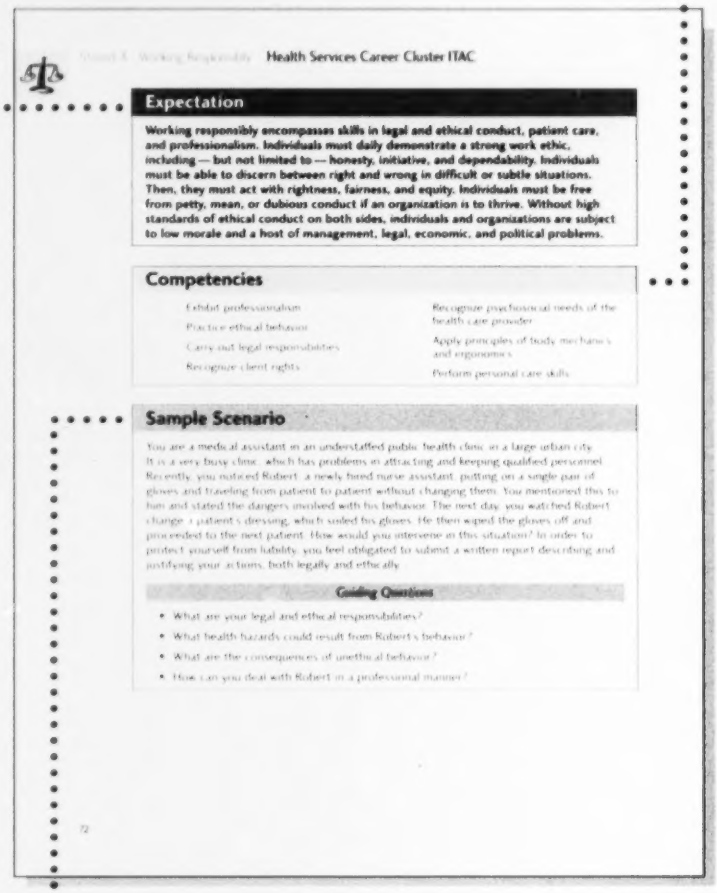
Career Clusters:
- Arts & Communications
- Business & Management
- Industrial & Engineering Systems
- Human Resources/Services
- Environmental & Agricultural Systems
- Health Services



Each strand in a Career Cluster ITAC has an introduction page which identifies the strand (in words and by icon) and the career cluster. These pages also appear in the Core ITAC.

Expectation – a statement of desired workplace behaviors and their importance in the world of work.

Competencies – observable and measurable knowledge, skills, and attitudes essential to achievement of the expectation.


Health Services Career Cluster ITAC
Expectation
Working responsibly encompasses skills in legal and ethical conduct, patient care, and professionalism. Individuals must daily demonstrate a strong work ethic, including — but not limited to — honesty, initiative, and dependability. Individuals must be able to discern between right and wrong in difficult or subtle situations. Then, they must act with rightness, fairness, and equity. Individuals must be free from petty, mean, or dubious conduct if an organization is to thrive. Without high standards of ethical conduct on both sides, individuals and organizations are subject to low morale and a host of management, legal, economic, and political problems.
Competencies
Exhibit professionalism
Practice ethical behavior
Carry out legal responsibilities
Recognize client rights
Recognize psychosocial needs of the health care provider
Apply principles of body mechanics and ergonomics
Perform personal care skills
Sample Scenario
You are a medical assistant in an understaffed public health clinic in a large urban city. It is a very busy clinic, which has problems in attracting and keeping qualified personnel. Recently, you noticed Robert, a newly hired nurse assistant, putting on a single pair of gloves and traveling from patient to patient without changing them. You mentioned this to him and stated the dangers involved with his behavior. The next day, you watched Robert change a patient's dressing, which soiled his gloves. He then wiped the gloves off and proceeded to the next patient. How would you intervene in this situation? In order to protect yourself from liability, you feel obligated to submit a written report describing and justifying your actions, both legally and ethically.
Guiding Questions
What are your legal and ethical responsibilities?
What health hazards could result from Robert's behavior?
What are the consequences of unethical behavior?
How can you deal with Robert in a professional manner?

Sample Scenario – a real-life workplace situation requiring learners to apply the knowledge and skills reflected in the strand competencies.

Sample Guiding Questions – targeted questions to use in focusing learners' attention on knowledge and skills covered in the scenario.

Solving Problems and Thinking Skillfully

Communicating Effectively

Applying Technology

Working Responsibly

Planning and Managing a Career

Managing Resources

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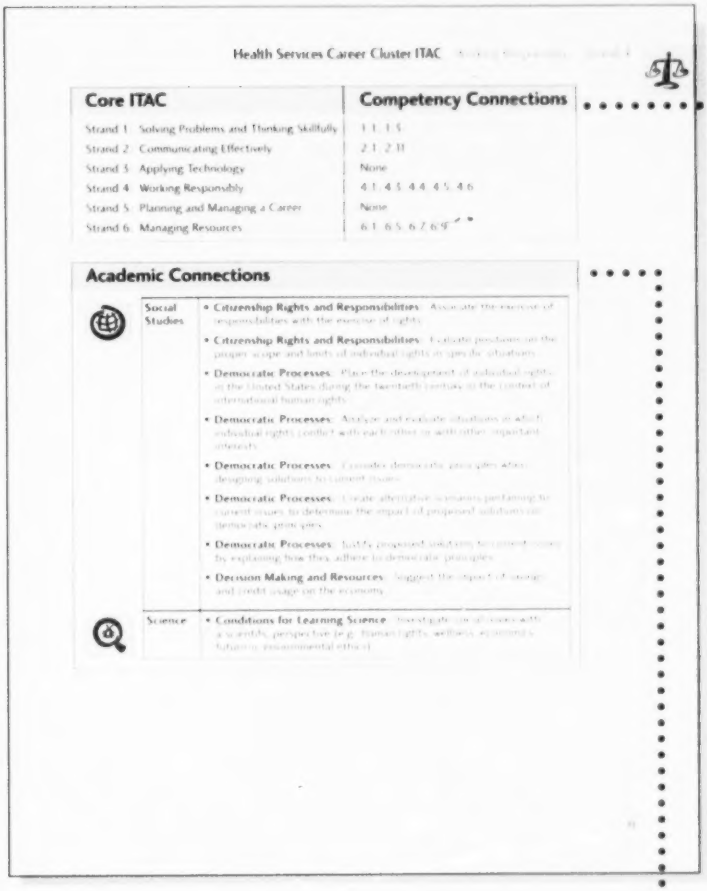
Connections to Core ITAC Competencies – a list, by number, of key competencies in Core ITAC that relate to and/or reinforce the competencies in the given strand and cluster.



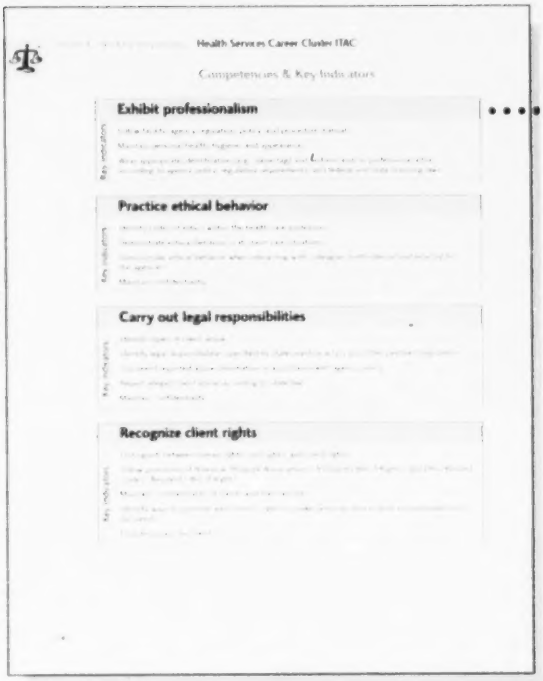
Health Services Career Cluster ITAC

Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.1, 1.5
Strand 2: Communicating Effectively	2.1, 2.11
Strand 3: Applying Technology	None
Strand 4: Working Responsibly	4.1, 4.3, 4.4, 4.5, 4.6
Strand 5: Planning and Managing a Career	None
Strand 6: Managing Resources	6.1, 6.5, 6.7, 6.9

Academic Connections

Social Studies	• **Citizenship Rights and Responsibilities**: Associate the exercise of responsibilities with the exercise of rights.
	• **Citizenship Rights and Responsibilities**: Evaluate positions on the proper scope and limits of individual rights in specific situations.
	• **Democratic Processes**: Place the development of individual rights in the United States during the twentieth century in the context of international human rights.
	• **Democratic Processes**: Analyze and evaluate situations in which individual rights conflict with each other or with other important interests.
	• **Democratic Processes**: Consider democratic principles when designing solutions to current issues.
	• **Democratic Processes**: Create alternative scenarios pertaining to current issues, to determine the impact of proposed solutions on democratic principles.
	• **Democratic Processes**: Justify proposed solutions to current issues by explaining how they adhere to democratic principles.
	• **Decision Making and Resources**: Suggest the impact of savings and credit usage on the economy.
Science	• **Conditions for Learning Science**: Investigate an issue with a scientific perspective (e.g., human rights, wellness, economics, futures, environmental ethics).

Connections to Academic Models – a list of objectives from Ohio's Competency-Based Education Models, grades 9–12, that relate to and/or reinforce the competencies in the given strand and cluster. Each academic area is represented by an icon.



Health Services Career Cluster ITAC

Competencies & Key Indicators

Exhibit professionalism

Key indicators

Practice ethical behavior

Key indicators

Carry out legal responsibilities

Key indicators

Recognize client rights

Key indicators

Pages following the overview list each competency with its key indicators. Key indicators describe significant elements of competency performance.

Connections to Ohio's Proficiency Tests and ACT Work Keys® – a crosswalk between ITACs (core, cluster, specialization) and assessments that reflect student exit outcomes.

The Arts

Mathematics

Social Studies

Language Arts

Foreign Language

Science

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Solving Problems and Thinking Skillfully - Strand 1

Health Services Career Cluster ITAC

Expectation

All individuals, regardless of career choice, must be able to think for themselves; initiate action on their own; and direct, modify, and assess their own work. Employers seek lifelong learners who can locate and use information. The following competencies — focusing on growth and development across the lifespan, disease prevention and treatment, and vital signs — specify the knowledge, skills, and attitudes needed to develop the capacity to assess problems and situations, anticipate what might happen next, and continuously search for creative solutions.

Competencies

- Analyze trends and issues within the health care industry
- Demonstrate knowledge of human growth and development across the lifespan
- Demonstrate knowledge of human body systems
- Contribute to planning measures for prevention and early treatment of disease
- Demonstrate knowledge of nutrition across the lifespan
- Demonstrate knowledge of body temperature standards and measures
- Demonstrate knowledge of pulse rate standards and measures
- Demonstrate knowledge of respiration standards and measures
- Demonstrate knowledge of blood pressure standards and measures
- Demonstrate knowledge of body measurements in metric and English units
- Use scientific inquiry to solve problems
- Examine current research

Sample Scenario

You are an employee of a health maintenance organization (HMO). Recent data about clients suggest that long-term costs can be controlled if clients are more health conscious. You have been assigned to lead the development of a plan for influencing the clients to practice preventative health behaviors. The HMO board of directors will provide adequate resources for development and implementation of the plan. You are to present the plan to the board within 6 months.

Guiding Questions

- What data do you need to analyze in order to develop your plan?
- How will you determine effective strategies for promoting change in clients?
- What resources do you need to develop the plan?
- How will you select the most effective approach to use?
- How do you plan to evaluate implementation of the plan?

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Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.1, 1.4, 1.5
Strand 2: Communicating Effectively	None
Strand 3: Applying Technology	None
Strand 4: Working Responsibly	None
Strand 5: Planning and Managing a Career	None
Strand 6: Managing Resources	6.3

Academic Connections

Math	• **Algebra:** Describe measures of central tendency, mean, median, mode, and variance, algebraically and graphically • **Algebra:** Symbolize transformations of figures and graphs • **Data Analysis and Probability:** Read, interpret, and use tables, charts, and graphs to identify patterns, note trends, draw conclusions, and make predictions • **Patterns, Relations, and Functions:** Explore periodic real-world phenomena using the sine and cosine functions • **Geometry:** Represent problem situations with geometric models and apply properties of figures • **Geometry:** Explore inductive and deductive reasoning through applications to various subject areas
Social Studies	• **American Heritage:** Work forward from some initiating event to its outcome and work backward from some issue, problem, or event to explain its causes • **American Heritage:** Suggest how past actions and decisions offer limitations and opportunities for the present • **American Heritage:** Create explanations of how current issues originated and developed • **Democratic Processes:** Analyze governmental actions in the United States federal system on the basis of the fundamental principles of American democracy and evaluate the extent to which the actions reflect those principles and help to serve the public good • **Citizenship Rights and Responsibilities:** Compare points of agreement and disagreement among sources providing information about civic issues • **Citizenship Rights and Responsibilities:** Participate with others in evaluating public policy and work to achieve consensus on how the policy issues should be addressed • **Decision Making and Resources:** Justify proposed solutions to current issues by considering the costs and benefits of the reallocation of resources

Academic Connections

Language Arts	• **Reading/Meaning Construction:** Develop and use an increasingly sophisticated vocabulary gained through context. • **Reading/Multidisciplinary:** Use the reading process to facilitate learning across the curriculum
Foreign Language	• **Multidisciplinary Connections, Information, and Knowledge:** Describe common behavior patterns, beliefs, and attitudes of people in the target culture(s) • **Multidisciplinary Connections, Information, and Knowledge:** Identify practices and beliefs in the target culture(s) that support a healthy lifestyle • **Insights into the Nature of Language and Culture:** Explain how actions of people in the home and target cultures are a reflection of their beliefs and attitudes (e.g., why some cultures rely on home remedies to cure illnesses or why it may be more important to spend time in establishing relationships rather than completing a task)
Science	• **Scientific Inquiry:** Document potentially hazardous conditions and associated risks in selected homes and public areas • **Scientific Inquiry:** Construct and test models of physical, biological, social, and geological systems • **Scientific Inquiry:** Observe and document events and characteristics of complex systems • **Scientific Inquiry:** Recognize and utilize classification systems for particles, elements, compounds, phenomena, organisms, and others for exploring and predicting properties and behaviors • **Scientific Knowledge:** Formulate models and hypotheses about patterns in the natural world (e.g., social behavior, molecular structure, energy transformation, entropy, randomness, aging, chaos, hormonal cycles) • **Scientific Knowledge:** Formulate explanations and representations of the production, transmission, and conservation of energy in biological and physical systems (e.g., cellular respiration) • **Scientific Knowledge:** Formulate models that can be used to describe fundamental molecular interactions in living and non-living systems (e.g., cell membranes, semiconductors) • **Scientific Knowledge:** Formulate an understanding of the degree of relationship among organisms and objects based on molecular structure (e.g., proteins, nucleic acids) • **Applications for Science Learning:** Make decisions regarding personal and public health • **Conditions for Learning Science:** Synthesize scientific information from a variety of sources • **Conditions for Learning Science:** Develop possible courses of action in response to scientific issues of local and global concern

Competencies & Key Indicators

Analyze trends and issues within the health care industry

Key Indicators:

- Analyze delivery systems throughout the continuum of care
- Analyze insurance issues from the consumer and provider views
- Compare reimbursement methods (e.g., HMOs, private care, Medicare, Medicaid)
- Analyze health care costs
- Analyze current and future ethical dilemmas in health care

Demonstrate knowledge of human growth and development across the lifespan

Key Indicators:

- Identify developmental tasks for each age group (neonate, infant, child, adolescent, adult, and geriatric)
- Identify health issues for each age group (neonate, infant, child, adolescent, adult, and geriatric)

Demonstrate knowledge of human body systems

Key Indicators:

- Demonstrate knowledge of the skeletal system
- Demonstrate knowledge of the muscular system
- Demonstrate knowledge of the cardiovascular system
- Demonstrate knowledge of the nervous system
- Demonstrate knowledge of the integumentary system
- Demonstrate knowledge of the reproductive system
- Demonstrate knowledge of the renal system
- Demonstrate knowledge of the digestive system
- Demonstrate knowledge of the endocrine system
- Demonstrate knowledge of the lymphatic system
- Demonstrate knowledge of the respiratory system

Contribute to planning measures for prevention and early treatment of disease

Key Indicators:

- Collect data regarding health history
- Identify measures that promote wellness across the lifespan
- Identify potential health hazards in lifestyles, life practices, and the physical environment
- Identify community resources for prevention and management of health problems

Demonstrate knowledge of nutrition across the lifespan

Key Indicators:

- Demonstrate knowledge of the importance of adequate nutrition
- Identify factors that affect the nutritional state of clients
- Demonstrate knowledge of typical, modified, and therapeutic diets
- Identify regional, cultural, and religious food preferences
- Identify safety issues regarding food handling and storage
- Identify safety issues related to feeding/eating

Demonstrate knowledge of body temperature standards and measures

Key Indicators:

- Identify normal range and average body temperature for each measurement method: oral, axillary, rectal, and tympanic
- Identify common causes of variations in body temperature
- Identify acceptable variations for normal range of body temperature
- Identify variations from normal body temperature range that should be reported
- Select the temperature measurement method (route) appropriate for given situation

Demonstrate knowledge of pulse rate standards and measures

Key Indicators:

- Identify peripheral pulse sites
- Identify criteria to use in selecting pulse site
- Identify normal pulse range for different age groups
- Identify factors that may affect pulse rate
- Identify variations from normal pulse range that should be reported
- Differentiate between palpation and auscultation

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Demonstrate knowledge of respiration standards and measures

Key Indicators:

- Identify normal respiratory rate for different age groups
- Identify factors that may affect respiration
- Identify common causes of variations in respiration
- Identify variations from normal respiration that should be reported

Demonstrate knowledge of blood pressure standards and measures

Key Indicators:

- Identify normal blood pressure ranges for different age groups
- Identify factors that may affect blood pressure
- Identify common causes of variations in blood pressure
- Identify variations from normal blood pressure ranges that should be reported

Demonstrate knowledge of body measurements in metric and English units

Key Indicators:

- Identify normal height, weight ranges, and head circumference for different age groups and different genders
- Identify factors that may affect height, weight, and head circumference
- Identify common causes of variations in height, weight, and head circumference
- Identify variations from normal height, weight ranges, and head circumference that should be reported

Use scientific inquiry to solve problems

Key Indicators:

- Identify the purpose of scientific inquiry
- Identify the steps in scientific inquiry
- Identify the characteristics of scientific inquiry
- Examine scientific relationships
- Formulate interpretations, explanations, and representations

Examine current research

Key Indicators:

- Distinguish between science and technology
- Assess risks and benefits of technology in a given area
- Determine validity and reliability of research
- Analyze current research results in a given area

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Communicating Effectively - Strand 2

Health Services Career Cluster ITAC

Expectation

Effective communication is essential to workplaces, communities, and families. Accurate documentation is vital in health services occupations. Employees with strong communication skills contribute to organizational productivity, enhance interpersonal relationships with coworkers and clients, and create opportunities for promotion and advancement.

Competencies

- Employ communication techniques
- Collect data to establish a health history
- Interact with members of the health care team (e.g., client, family, health care workers)
- Document client care

Sample Scenario

You are a health educator for the local health department in the well-child clinic. A child who speaks English as a second language has just been diagnosed with diabetes. You have been assigned to teach the five-year-old and his Spanish-speaking family about the disease. You need to plan an ongoing communication effort. What would you do? You need to present your plan to your immediate supervisor prior to implementing it.

Guiding Questions

- What information about diabetes needs to be communicated to the child and family?
- What barriers must be overcome in order to educate the child and family?
- What verbal and nonverbal communication techniques will you use?
- What resources are available to facilitate communication in another language?
- How will you evaluate the learning of the child and family?
- How will you present your plan to your supervisor?

Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.1, 1.2, 1.3, 1.7
Strand 2: Communicating Effectively	2.1, 2.2, 2.3, 2.4, 2.5, 2.11
Strand 3: Applying Technology	None
Strand 4: Working Responsibly	4.2, 4.3, 4.4, 4.5, 4.6
Strand 5: Planning and Managing a Career	None
Strand 6: Managing Resources	6.1, 6.4, 6.8

Academic Connections

Language Arts	• **Listening/Visual Literacy/Meaning Construction:** Communicate orally to inform and persuade • **Listening/Visual Literacy/Meaning Construction:** Assess needs of audience, adjusting language and presentation according to their understanding • **Listening/Visual Literacy/Application:** Use oral communication for a variety of purposes and audiences • **Writing/Application:** Vary styles and formats for the intended purpose and audience • **Writing/Meaning Construction:** Evaluate, analyze, and synthesize information for writing • **Oral Communication/Meaning Construction:** Use interviewing techniques to gather information • **Oral Communication/Structure:** Refine speaking techniques for formal, semiformal, and informal settings

Foreign Language	• **Cultural Knowledge:** Develop sensitivity to cultural differences • **Insights into the Nature of Language and Culture:** Develop the ability to paraphrase and circumlocute to facilitate communication in the target language • **Cultural Knowledge:** Use appropriate language and gestures in a wide range of social contexts • **Insights into the Nature of Language and Culture:** Function in a wide range of social and professional contexts using appropriate language and gestures

Science	• **Scientific Inquiry:** Create, standardize, and document procedures

Competencies & Key Indicators

Employ communication techniques

Key Indicators:

- Identify effective techniques for communicating with behaviorally or emotionally impaired clients; hearing-, speech-, and vision-impaired clients; and mentally and physically challenged clients
- Identify effective techniques for communicating with clients with non-English or limited English proficiency
- Demonstrate therapeutic communication techniques
- Adjust personal communication style to fit different levels of understanding
- Follow accepted procedures when placing and receiving phone calls or using an intercom system
- Use standard medical terminology, abbreviations, and symbols in oral and written communication
- Maintain confidentiality

Collect data to establish a health history

Key Indicators:

- Identify the different types of information collected in a health history
- Access resources needed to remove communication barriers (e.g., clients with limited English)
- Secure needed information
- Differentiate between subjective and objective observations
- Maintain confidentiality

Interact with members of the health care team (e.g., client, family, health care workers)

Key Indicators:

- Identify the characteristics of different stages of human growth and development and their effects on communication
- Identify attitudes and behaviors that promote positive interaction between the health care provider and client
- Identify attitudes and behaviors that promote positive interaction between members of the health care team
- Demonstrate sensitivity to client's biopsychosocial health needs
- Explain routine procedures at client's level of understanding
- Identify barriers that can affect client confidence
- Educate health care team members regarding health issues
- Demonstrate sensitivity to boundary issues when interacting with clients
- Maintain confidentiality
- Follow established reporting procedures concerning what to report, to whom, and when (e.g., in a timely manner)

Document client care

Key Indicators:

- Identify types of documentation used in the health care profession
- Record information in accordance with standard policies and procedures
- Maintain professional standards in all documentation activities (e.g., accuracy, timeliness, confidentiality)
- Record vital signs, height, weight and head circumference in metric and English units

Expectation

Technology influences every work environment. To be effective in today's workplace, individuals must be able to use the tools of technology and software applications to improve productivity and efficiency. Employers seek individuals who have developed technological skills and who stay abreast of the continuously changing technological environment.

Competencies

- Manage information using computer applications
- Communicate using telecommunication tools
- Analyze the role of technology in the health care industry
- Measure vital signs, height, weight, head circumference, and body temperature

Sample Scenario

You are an office manager for a growing dental practice. The practice has three dentists, four dental hygienists, two dental assistants, and three clerical support personnel. A major goal of the practice is to become a paperless office. You need to evaluate the systems of record keeping, billing, scheduling, office communications, etc., and create a proposal for attaining a paperless office. Your proposal needs to include the recommendations for selecting and maintaining needed technologies and for training of personnel. You need to present your proposal to the dentists.

Guiding Questions

- What information do you need to collect from personnel?
- How will you assess the technology needs of the practice?
- What strategies will you use to identify the latest technologies applicable to attaining a paperless office?
- What criteria will you use to select technology that you plan to propose?
- What medical and legal issues will be of concern to you in the creation of a paperless office?
- How will you present your proposal so that it communicates effectively to busy dentists?

Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.1, 1.2, 1.5, 1.7
Strand 2: Communicating Effectively	2.1, 2.2, 2.3, 2.5
Strand 3: Applying Technology	3.1, 3.2, 3.3, 3.4, 3.5, 3.6
Strand 4: Working Responsibly	4.3, 4.5
Strand 5: Planning and Managing a Career	None
Strand 6: Managing Resources	6.4, 6.8, 6.9

Academic Connections

Math	• **Algebra:** Describe when a problem situation is best solved using a computer, calculator, paper and pencil, or mental arithmetic/ estimation techniques
Language Arts	• **Oral Communication/Application:** Use oral communication for a variety of purposes and audiences. • **Reading/Application:** Select and read material for information and personal enjoyment • **Writing/Application:** Vary styles and formats for the intended purpose and audience
Science	• **Scientific Inquiry:** Analyze error and develop explanations in various domains • **Applications for Science Learning:** Analyze the contributions of advances in technology through history to own everyday life • **Applications for Science Learning:** Extend the limits of human capabilities using technological enhancements • **Conditions for Learning Science:** Use technology to communicate scientific ideas

Competencies & Key Indicators

Manage information using computer applications

Key Indicators:

- Access needed operating information using manufacturer's manuals, software documentation, and other reference materials
- Select software programs appropriate for identified needs
- Support provision of health care education using a variety of computer applications
- Manage health care records using selected software program(s)
- Maintain confidentiality

Communicate using telecommunication tools

Key Indicators:

- Identify facility/agency policies and protocols regarding use of telecommunications tools (telephones, answering machine, pager, fax, voice mail, e-mail, teleconferencing systems)
- Access operating information using manufacturer's manuals
- Communicate via telecommunication tools in accordance with established policies/protocols
- Take complete and accurate messages
- Give complete and accurate messages
- Document messages
- Demonstrate knowledge of new and emerging communication technologies
- Maintain confidentiality

Analyze the role of technology in the health care industry

Key Indicators:

- Demonstrate knowledge of general technology trends
- Identify trends in monitoring devices
- Identify trends in diagnostics testing
- Identify technology applications that support intervention

Measure vital signs, height, weight, head circumference, and body temperature

Key Indicators:

- Measure body temperatures using a variety of methods
- Disinfect thermometers
- Store thermometers
- Measure pulse using a variety of pulse sites
- Measure respiratory rate
- Measure blood pressure
- Measure height, weight, and head circumference in metric and English units

Working Responsibly - Strand 4

Health Services Career Cluster ITAC

Expectation

Working responsibly encompasses skills in legal and ethical conduct, patient care, and professionalism. Individuals must daily demonstrate a strong work ethic, including — but not limited to — honesty, initiative, and dependability. Individuals must be able to discern between right and wrong in difficult or subtle situations. Then, they must act with rightness, fairness, and equity. Individuals must be free from petty, mean, or dubious conduct if an organization is to thrive. Without high standards of ethical conduct on both sides, individuals and organizations are subject to low morale and a host of management, legal, economic, and political problems.

Competencies

- Exhibit professionalism
- Practice ethical behavior
- Carry out legal responsibilities
- Recognize client rights
- Recognize psychosocial needs of the health care provider
- Apply principles of body mechanics and ergonomics
- Perform personal care skills

Sample Scenario

You are a medical assistant in an understaffed public health clinic in a large urban city. It is a very busy clinic, which has problems in attracting and keeping qualified personnel. Recently, you noticed Robert, a newly hired nurse assistant, putting on a single pair of gloves and traveling from patient to patient without changing them. You mentioned this to him and stated the dangers involved with his behavior. The next day, you watched Robert change a patient's dressing, which soiled his gloves. He then wiped the gloves off and proceeded to the next patient. How would you intervene in this situation? In order to protect yourself from liability, you feel obligated to submit a written report describing and justifying your actions, both legally and ethically.

Guiding Questions

- What are your legal and ethical responsibilities?
- What health hazards could result from Robert's behavior?
- What are the consequences of unethical behavior?
- How can you deal with Robert in a professional manner?

Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.1, 1.3
Strand 2: Communicating Effectively	2.1, 2.11
Strand 3: Applying Technology	None
Strand 4: Working Responsibly	4.1, 4.3, 4.4, 4.5, 4.6
Strand 5: Planning and Managing a Career	None
Strand 6: Managing Resources	6.1, 6.5, 6.7, 6.9

Academic Connections

Social Studies	• **Citizenship Rights and Responsibilities:** Associate the exercise of responsibilities with the exercise of rights • **Citizenship Rights and Responsibilities:** Evaluate positions on the proper scope and limits of individual rights in specific situations • **Democratic Processes:** Place the development of individual rights in the United States during the twentieth century in the context of international human rights • **Democratic Processes:** Analyze and evaluate situations in which individual rights conflict with each other or with other important interests • **Democratic Processes:** Consider democratic principles when designing solutions to current issues • **Democratic Processes:** Create alternative scenarios pertaining to current issues to determine the impact of proposed solutions on democratic principles • **Democratic Processes:** Justify proposed solutions to current issues by explaining how they adhere to democratic principles • **Decision Making and Resources:** Suggest the impact of savings and credit usage on the economy
Science	• **Conditions for Learning Science:** Investigate social issues with a scientific perspective (e.g., human rights, wellness, economics, futurism, environmental ethics)

Competencies & Key Indicators

Exhibit professionalism

Key Indicators:

- Follow facility/agency regulation, policy, and procedure manuals
- Maintain personal health, hygiene, and appearance
- Wear appropriate identification (e.g., name tag) and uniform and/or professional attire according to agency policy, regulatory requirements, and federal and state licensing laws

Practice ethical behavior

Key Indicators:

- Identify codes of ethics within the health care profession
- Demonstrate ethical behavior in all client care situations
- Demonstrate ethical behavior when interacting with colleagues both internal and external to the agencies
- Maintain confidentiality

Carry out legal responsibilities

Key Indicators:

- Identify types of client abuse
- Identify legal responsibilities specified by state practice act(s) and other pertinent legislation
- Document reported abuse information in accordance with agency policy
- Report alleged client abuse according to state law
- Maintain confidentiality

Recognize client rights

Key Indicators:

- Distinguish between human rights, civil rights, and client rights
- Follow provisions of American Hospital Association's "A Patient's Bill of Rights" and Ohio Revised Code's "Resident's Bill of Rights"
- Maintain confidentiality of clients and their records
- Identify ways to promote each client's rights to make personal choices that accommodate his or her needs
- Provide privacy for clients

Recognize the psychosocial needs of the health care provider

Key Indicators:

- Identify stresses in the health care profession (e.g., death, dying, staffing shortages, critical incidents)
- Express feelings related to being a health care provider (e.g., appropriate forum, at the appropriate time)
- Identify coping strategies, resources, and support persons

Apply principles of body mechanics and ergonomics

Key Indicators:

- Demonstrate knowledge of principles of body mechanics and ergonomics
- Demonstrate proper body mechanics when moving or assisting clients
- Demonstrate proper body mechanics when obtaining supplies and equipment

Perform personal care skills

Key Indicators:

- Demonstrate bathing techniques
- Demonstrate oral hygiene techniques
- Demonstrate integumentary care
- Demonstrate turning, positioning, transferring, and ambulatory techniques

Planning and Managing a Career - Strand 5

Health Services Career Cluster ITAC

Expectation

Since work is a significant part of life, individuals need to be actively engaged in seeking a career that matches their interests, abilities, aptitudes, and skills. Career planning enhances the possibility that one's career path will lead to success and satisfaction in work. Employers seek individuals who know what they want from work and can effectively present their qualifications and skills through the job search process, including job applications and interviews. Throughout one's career, it is also important to seek continuous professional development opportunities.

Competencies

- Explore various health care careers
- Seek employment in the health field
- Plan for professional development
- Manage professional career

Sample Scenario

You have been working as a physical therapy assistant in a hospital and are very much interested in advancing your career in the health care industry. Your employer will provide tuition assistance if you establish a plan for your professional development. Explore qualifications for various positions, and develop a plan to achieve your career goals. Include a career ladder, education and training opportunities, and a plan for seeking future positions. Present your plan to a panel of employer representatives.

Guiding Questions

- How will you find out about the variety of careers in the health career industry?
- How will you determine whether a given career is appropriate for you?
- After you identify an interest in a specific career, how will you find out about educational requirements and training opportunities?
- What role will professional organizations play in your career and in your professional development?

Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.3
Strand 2: Communicating Effectively	2.1, 2.2, 2.3, 2.5
Strand 3: *Applying Technology*	None
Strand 4: Working Responsibly	None
Strand 5: Planning and Managing a Career	5.1, 5.2, 5.4, 5.5, 5.6
Strand 6: Managing Resources	6.2

Academic Connections

Language Arts	• **Oral Communication:** Communicate orally to inform and persuade • **Listening/Visual Literacy:** Select and read material for personal enjoyment and information • **Writing:** Evaluate and revise writing to focus on such things as audience, tone, and purpose
Foreign Language	• **Participation in Multilingual Communities at Home:** Participate in a career exploration or school-to-work project that requires proficiency in the target language and culture
Science	• **Applications for Science Learning:** Refine personal career interests through investigations of the diversity of manufacturing, research, service, and invention processes

Competencies & Key Indicators

Explore various health care careers

Key Indicators:

- Identify educational requirements and availability of educational opportunities for different health professions
- Explore specific health care interests (e.g., shadowing, worksite experiences, professional readings)
- Research projected growth of various health care careers

Seek employment in the health field

Key Indicators:

- Identify documentation needed for obtaining a health care position
- Compile documents needed for obtaining a position
- Update documents needed for health employment
- Identify employment opportunities
- Dress appropriately for job interview
- Present credentials, philosophy, and goals in job interview for a health employment position
- Analyze personnel policies and procedures
- Identify the steps to follow in leaving a health employment position
- Identify laws related to employment in health care

Plan for professional development

Key Indicators:

- Identify professional development opportunities and requirements within the agency
- Identify the role of professional organizations in the professional development process
- Identify the purpose and benefits of belonging to professional organizations within the health field (membership, networking)
- Identify the benefits of belonging to civic and community organizations
- Identify the benefits of lifelong learning for the health professional
- Determine professional development needs
- Develop a plan for meeting identified needs (e.g., through workshops, classes, professional reading)
- Differentiate between the roles/responsibilities of regulatory agencies and professional organizations

Manage professional career

Key Indicators:

- Set professional goals
- Plan for career growth
- Develop skills and characteristics needed to meet professional goal
- Identify possible advancement patterns in health careers
- Monitor progress toward professional goals

Managing Resources - Strand 6

Health Services Career Cluster ITAC

Expectation

In high-performance health care workplaces, all individuals must effectively manage a variety of resources — personal, financial, and environmental. Individuals' ability to maintain good health, contribute to infection control and safety, and manage medical emergencies not only enhances personal well-being, but fosters the success of the organization or business as well.

Competencies

- Identify state and federal regulations concerning safety, health, and protection of the environment
- Practice universal precautions against infection
- Dispose of waste materials
- Contribute to the creation of a hazard-free, accident-free environment
- Apply general principles of communicable disease protection
- Perform medical emergency procedures

Sample Scenario

You are a registered nurse and risk manager in a small rural hospital. The hospital emergency room has been notified that several victims of a local chemical plant explosion are due to arrive shortly. You have been called to the emergency room to observe the triage of the victims and implement a pre-established disaster plan. When you arrive, you are surprised to find the local media has already arrived. You also discover that there is a short supply of personnel, even for a regular shift. You need to devise a plan of action for immediate implementation. Later, you will need to justify your actions.

Guiding Questions

- What are the components of a disaster plan?
- What are the specific problems that require your immediate action?
- What criteria will you use to determine the priority of your actions?
- How will you assess your need for additional supplies and resources?
- What is your plan of justification?

Core ITAC	Competency Connections
Strand 1: Solving Problems and Thinking Skillfully	1.1, 1.2, 1.7
Strand 2: Communicating Effectively	None
Strand 3: Applying Technology	None
Strand 4: Working Responsibly	4.1, 4.2, 4.3, 4.4
Strand 5: Planning and Managing a Career	None
Strand 6: Managing Resources	6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.8, 6.9

Academic Connections

Social Studies	• **Democratic Processes:** Analyze governmental actions in the United States federal system on the basis of the fundamental principles of American democracy, and evaluate the extent to which the actions reflect those principles and help to serve the public good • **Citizenship Rights and Responsibilities:** Participate with others in evaluating public policy and work to achieve consensus on how the policy issues should be addressed
Language Arts	• **Reading/Application:** Select and read material for information and personal enjoyment
Science	• **Scientific Inquiry:** Document potentially hazardous conditions and associated risks in selected homes and public areas • **Applications for Learning Science:** Use scientific evidence to consider options and formulate positions about the health and safety of others and self • **Applications for Learning Science:** Make decisions regarding personal and public health • **Applications for Learning Science:** Develop and write environmental impact plans, and safety and hygiene management plans • **Scientific Knowledge:** Formulate explanations for the influence of objects and organisms on each other over time • **Conditions for Learning Science:** Investigate social issues with a scientific perspective (e.g., human rights, wellness, economics, futurism, environmental ethics)

Competencies & Key Indicators

Identify state and federal regulations concerning safety, health, and protection of the environment

Key Indicators:

- Identify current Occupational Safety and Health Administration (OSHA) regulations
- Identify current Environmental Protection Agency (EPA) regulations
- Identify current Center for Disease Control (CDC) guidelines
- Identify current Nuclear Regulatory Commission (NCR) regulations
- Identify current Federal Drug Administration (FDA) regulations

Practice universal precautions against infection

Key Indicators:

- Identify standard precautions for dealing with blood and body fluids
- Wear protective clothing and devices (gloves, gown or apron, mask, eye protection) appropriate for a given situation
- Employ established hand-washing techniques
- Identify the differences between clean, disinfect, and sterile
- Practice safe, sanitary, and sterile procedures
- Identify personal immunization status

Dispose of waste materials

Key Indicators:

- Identify references and resource materials related to infection control and hazards management (e.g., MSDSs, Poison Control toll-free number, Center for Disease Control toll-free number)
- Dispose of infectious and hazardous waste and controlled substances in accordance with government regulations

Contribute to the creation of a hazard-free, accident-free environment

Key Indicators:

- Identify environmental and safety rules of facility/agency
- Identify all applicable regulatory requirements and guidelines
- Identify legal implications of accidents in a health care facility
- Follow procedures established to prevent equipment-related accidents
- Handle substances in accordance with Material Safety Data Sheets (MSDSs) and other applicable regulatory guidelines
- Report and/or correct safety hazards
- Write incident report(s) documenting accidents or safety infractions in accordance with policies and procedures
- Maintain professional standards in all documentation activities (e.g., accuracy, timeliness, confidentiality)

Apply general principles of communicable disease prevention

Key Indicators:

- Identify chain of infection
- Identify common communicable diseases and modes of transmission
- Demonstrate different aseptic techniques
- Identify sterilization methods
- Demonstrate sterilization techniques
- Follow established procedures in notifying health department of reportable communicable diseases

Perform medical emergency procedures

Key Indicators:

- Identify the laws pertinent to emergency care
- Identify procedures to be followed in the event of emergencies
- Maintain inventory and condition of medical emergency supplies and equipment
- Acquire/maintain first-aid certification
- Acquire/maintain cardiopulmonary resuscitation (CPR) certification
- Report emergency treatments administered in chronological order
- Document emergency treatments administered in chronological order

Health Services Career Cluster ITAC Acknowledgments

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Health Services Career Cluster ITAC

for Career-Focused Education

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